



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,119	12/10/2003	Hiroshi Omura	03500.017765	4661
5514 7590 01/29/2008 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER MILIA, MARK R	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 01/29/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/731,119

Applicant(s)

OMURA, HIROSHI

Examiner

Mark R. Milia

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-20 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 20 is drawn to functional descriptive material NOT claimed as residing on a computer readable medium.

Claim 20, while defining a data processing program, does not define a "computer-readable medium" and is thus non-statutory for that reasons. A data processing program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" in order to make the claim statutory.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2625

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-6, and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,047,955 to Shope et al.

Regarding claims 1, 19, and 20, Shope discloses a data processing apparatus, method, and program for transferring a document formed by a plurality of logical pages to a printing device, and allowing the printing device to perform a printing process in set units, comprising: spooling means for spooling the document (see Fig. 1 and column 2 lines 27-28), designation means for designating a printing mode for output of a plurality of logical pages to one storage medium (see column 2 lines 31-67), collate determination means for determining whether or not the document is a collate document to be printed in plural set units by comparing drawing information among the logical pages of the document spooled in said spooling means when said designation means designates the printing mode (see column 3 lines 1-21), detection means for comparing drawing information among logical pages in the spooled document when said collate determination means determines that the document is a collate document, and detecting the number of pages as a segment of a set unit (see column 3 lines 1-21), and control means for controlling a set-unit transfer process on drawing information for the printing device depending on the segment of a set unit detected by said detection means (see column 2 line 57-column 3 line 21).

Regarding claim 3, Shope further discloses wherein when said collate document determination means determines whether or not the current document is a collate-formatted document, the size of data on each page stored by said spooling means is

Art Unit: 2625

compared, and it is determined whether or not contents are different (see column 2 line 31-column 3 line 8).

Regarding claim 4, Shope further discloses wherein when said collate document determination means determines whether or not the current document is a collate-formatted document, a spool code of each page is sampled and compared, thereby determining a page containing different contents (see column 2 line 57-column 3 line 21).

Regarding claim 5, Shope further discloses wherein when said collate document determination means determines whether or not the current document is a collate-formatted document, all data in a spool code of each page is compared as a method of determining pages completely matching in contents, thereby determining matching pages in contents (see column 2 line 57-column 3 line 21).

Regarding claim 6, Shope further discloses wherein when a printing device can perform collate- printing, there is no means for spooling a print command, and it is necessary to transmit a collate set number designation print command at the beginning of a job, all pages in the job are temporarily spooled and then said collate document determination means makes a determination, when said print command generation means generates a collate set number designation print command and a part of leading print commands, said collate document determination means obtains a factor (including 1) of a total number of pages forming a document, segments a document for each factor, and determines drawing contents whether or not a collate-format page configuration is established (see column 2 line 57-column 3 line 21).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 8, 11-13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shope as applied to claim 1 above, and further in view of U.S. Patent Application Publication No. 2002/0186384 to Winston et al.

Regarding claim 2, Shope does not disclose expressly wherein a printing mode which can be specified by said designation means includes a double-sided printing mode for printing drawing information on both sides of a storage medium, and a N-up printing mode for outputting a plurality of logical pages on the storage medium.

Winston discloses wherein a printing mode which can be specified by said designation means includes a double-sided printing mode for printing drawing information on both sides of a storage medium, and a N-up printing mode for outputting a plurality of logical pages on the storage medium (see paragraph 26).

Regarding claim 8, Shope does not disclose expressly wherein when a printing device does not perform collate-printing, a collate document is divided as a plurality of print commands in set units and transferred to a printing device.

Winston discloses wherein when a printing device does not perform collate-printing, a collate document is divided as a plurality of print commands in set units and transferred to a printing device (see paragraphs 30-35).

Regarding claim 13, Shope does not disclose expressly wherein when a function of printing a plurality of logical pages on one output medium is applied at an information processing device side, a function of printing a plurality of logical pages on one output medium with a segment of a set unit in a collate document taken into account.

Winston discloses wherein when a function of printing a plurality of logical pages on one output medium is applied at an information processing device side, a function of printing a plurality of logical pages on one output medium with a segment of a set unit in a collate document taken into account (see paragraphs 26-27 and 30-35).

Regarding claim 15, Shope does not disclose expressly wherein said collate determination means obtains the factors of the number of pages forming a job, segments the job for each factor, and determines according to drawing information whether or not a page configuration is in a collate format.

Winston discloses wherein said collate determination means obtains the factors of the number of pages forming a job, segments the job for each factor, and determines according to drawing information whether or not a page configuration is in a collate format (see paragraphs 26-27 and 30-35).

Shope & Winston are combinable because they are from similar fields of endeavor, increasing print speed.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the splitting and subsequent processing of a collate document, which may contain duplex or N-up printing options (which are well known and commonly used in the art), for printing, as described by Winston, with the system of Shope.

The suggestion/motivation for doing so would have been to increase print speed.

Therefore, it would have been obvious to combine Winston with Shope to obtain the invention as specified in claims 2, 8, 13, and 15.

Regarding claim 11, Winston further discloses wherein a set-unit print command can be divided by issuing a command to specify a page number of a logical page arranged on one output medium (see paragraphs 26-27 and 30-35).

Regarding claim 12, Winston further discloses wherein a set-unit print command can be divided by dividing a job in set units (see paragraphs 26-27 and 30-35).

6. Claims 14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shope as applied to claim 1 above, and further in view of U.S. Patent Application Publication No. 2003/0030209 to Pickett.

Regarding claim 14, Shope discloses print command generation means for generating a print command for printing one set when said collate determination means determines that the document is a collate document (see Fig. 1 and column 2 line 27-column 3 line 21).

Shope does not disclose expressly bin configuration determination means (for example, a spool file manager 304 shown in FIG. 4) for determining whether or not the printing device has a plurality of output bins, wherein said print command generation means generates an output bin designation print command for specifying output of a different output bin for each set when said bin configuration determination means determines a plurality of output bins.

Pickett discloses bin configuration determination means (for example, a spool file manager 304 shown in FIG. 4) for determining whether or not the printing device has a plurality of output bins (see paragraphs 4, 8, and 19-20), wherein said print command generation means generates an output bin designation print command for specifying output of a different output bin for each set when said bin configuration determination means determines a plurality of output bins (see paragraphs 8 and 19-20).

Shope & Pickett are combinable because they are from the same field of endeavor, collation of documents.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the plurality of output bins, as described by Pickett (which is well known and commonly used in the art), with the system of Shope.

The suggestion/motivation for doing so would have been to allow a user to easily discern collated documents and to ensure proper drying time.

Therefore, it would have been obvious to combine Pickett with Shope to obtain the invention as specified in claim 14.

Regarding claim 16, Pickett further discloses wherein said print command generation means temporarily stores all pages of a job when the printing device has no function of spooling a print command, and then generates a collate set number designation print command (see paragraphs 4, 8, and 19-20).

Regarding claim 17, Shope further discloses collate function applicability determination means (for example, a spool file manager 304 shown in FIG. 4) for determining whether or not the printing device can perform a collate-printing function or whether or not there is a collate-printing function, wherein when it is determined that the collate-printing is not applicable, or when the collate-printing function is not available, the spooling process is not performed, and a generated print command is transferred to a printing device (see column 1 lines 20-25 and 34-41, reference states that the copier/printer may receive character code signals, which are processed to form collated sets of a printed document, when it is desired, which eludes to the fact that when no collation is desired that documents would be processed by default processing procedures).

Regarding claim 18, Shope further discloses position determination means (for example, a spool file manager 304 shown in FIG. 4) for determining the possible issue position in a job to which a collate set number designation print command can be issued when said collate function applicability determination means determines that the printing device can perform a collate-printing function (see Fig. 1 and column 2 line 27-column 3 line 21).

Art Unit: 2625

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shope and Winston as applied to claim 8 above, and further in view of U.S. Patent No. 6,980,306 to Lapstun et al.

Shope and Winston do not disclose expressly wherein a blank page is added such that a function can be divided in set units with a function of printing a plurality of logical pages on one output medium taken into account so that a print command can be divided in set units.

Lapstun discloses wherein a blank page is added such that a function can be divided in set units with a function of printing a plurality of logical pages on one output medium taken into account so that a print command can be divided in set units (see column 5 lines 5-7).

Shope, Winston, & Lapstun are combinable because they are from a similar field of endeavor, increasing print speed with collation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the insertion of a blank page, as described by Lapstun (which is well known and commonly used in the art), with the system of Shope and Winston.

The suggestion/motivation for doing so would have been to ensure the proper placement of documents that are to be collated.

Therefore, it would have been obvious to combine Lapstun with Shope and Winston to obtain the invention as specified in claim 9.

Art Unit: 2625

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shope, Winston, and Lapstun as applied to claim 9 above, and further in view of U.S. Patent Application Publication No. 2002/0122189 to Salgado.

Shope, Winston, and Lapstun do not disclose expressly wherein when a printing device has a blank paper saving function, a print command to disable a blank paper saving function is issued.

Salgado discloses expressly wherein when a printing device has a blank paper saving function, a print command to disable a blank paper saving function is issued (see paragraph 11).

Shope, Winston, Lapstun, & Salgado are combinable because they are from a similar field of endeavor, increasing print speed with collation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the disabling of a blank page, as described by Salgado, with the system of Shope, Winston, and Lapstun.

The suggestion/motivation for doing so would have been to increase print speed by eliminating blank pages.

Therefore, it would have been obvious to combine Salgado with Shope, Winston, and Lapstun to obtain the invention as specified in claim 10.

Allowable Subject Matter

9. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. To further show the state of the art please refer to the attached Notice of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.


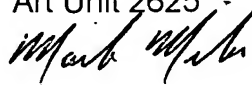
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Haskins can be reached at (571) 272-7406. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRM

Mark R. Milia
Examiner
Art Unit 2625



TWYLER LAMB HASBRIUS
SUPERVISORY PATENT EXAMINER